

ATTACHMENT E

FACTORS, MEASUREMENTS AND CALCULATIONS THAT GO INTO DETERMINING STATION SIGNAL CONTOURS AND ASSOCIATED POPULATION COVERAGES

AM Stations

For stations with nondirectional daytime antennas, the theoretical radiation was used at all azimuths. For stations with directional daytime antennas, specific information on each day tower, including field ratio, phasing, spacing and orientation was retrieved, as well as the theoretical pattern root-mean-square of the radiation in all directions in the horizontal plane (RMS) figure milliVolt per meter (mV/m) @ 1 km for the antenna system. The standard, or modified standard if pertinent, horizontal plane radiation pattern was calculated using techniques and methods specified in §§73.150 and 73.152 of the Commission's rules.²⁶⁸ Radiation values were calculated for each of 360 radials around the transmitter site. Next, estimated soil conductivity data was retrieved from a database representing the information in FCC Figure R3²⁶⁹. Using the calculated horizontal radiation values, and the retrieved soil conductivity data, the distance to the city grade (5 mV/m) contour was predicted for each of the 360 radials. The resulting distance to city grade contours were used to form a geographical polygon. Population counting was accomplished by determining which 2000 block centroids were contained in the polygon. (A block centroid is the center point of a small area containing population as computed by the U.S. Census Bureau.) The sum of the population figures for all enclosed blocks represents the total population for the predicted city grade coverage area.

FM Stations

The greater of the horizontal or vertical effective radiated power (ERP) (kW) and respective height above average terrain (HAAT) (m) combination was used. Where the antenna height above mean sea level (HAMSL) was available, it was used in lieu of the average HAAT figure to calculate specific HAAT figures for each of 360 radials under study. Any available directional pattern information was applied as well, to produce a radial-specific ERP figure. The HAAT and ERP figures were used in conjunction with the Field Strength (50-50) propagation curves specified in 47 C.F.R. § 73.313 of the Commission's rules to predict the distance to the city grade (70 dBu (decibel above 1 microVolt per meter) or 3.17 mV/m) contour for each of the 360 radials.²⁷⁰ The resulting distance to city grade contours were used to form a geographical polygon. Population counting was accomplished by determining which 2000 block centroids were contained in the polygon. The sum of the population figures for all enclosed blocks represents the total population for the predicted city grade coverage area.

²⁶⁸ 47 C.F.R. §§ 73.150 and 73.152.

²⁶⁹ See *Map of Estimated Effective Ground Conductivity in the United States*, 47 C.F.R. § 73.190 Figure R3.

²⁷⁰ 47 C.F.R. § 73.313.

ATTACHMENT F**Parties Filing Comments on the Notice of Proposed Rulemaking**

Blooston, Mordkofsky, Dickens, Duffy & Prendergast ("BMDDP")
Cingular Wireless LLC ("Cingular")
National Cable & Telecommunications Association ("NCTA")
Satellite Industry Association ("SIA")
Tyco Communications (US) Inc. ("Tyco")
XO Communications, Inc. ("XO")

Parties Filing Reply Comments

American Cable Association ("ACA")
Cellular Telecommunications and Internet Association ("CTIA")
DIRECTV, Inc. and EchoStar Satellite ("DirectTV & Echostar")
Level 3 Communications ("Level 3")
Tyco Communications (US) Inc. ("Tyco")

Parties Filing a Notice of Oral Ex Parte Presentation

Tyco Telecommunications ("Tyco Telecom")
Filed by Harris, Wiltshire & Grannis, LLP

Satellite company representatives from Intelsat, PanAmSat, and SES Americom
Filed by Hogan & Hartson, LLP

XO Communications ("XO")
Files by Mintz, Levin, Cohn, Ferris, Glovsky, and Popeo, PC

ATTACHMENT G

FY 2004 SCHEDULE OF REGULATORY FEES

Fee Category	Annual Regulatory Fee (U.S. \$'s)
PLMRS (per license) (Exclusive Use) (47 CFR part 90)	10
Microwave (per license) (47 CFR part 101)	50
218-219 MHz (Formerly Interactive Video Data Service) (per license) (47 CFR part 95)	50
Marine (Ship) (per station) (47 CFR part 80)	15
Marine (Coast) (per license) (47 CFR part 80)	10
General Mobile Radio Service (per license) (47 CFR part 95)	5
Rural Radio (47 CFR part 22) (previously listed under the Land Mobile category)	5
PLMRS (Shared Use) (per license) (47 CFR part 90)	5
Aviation (Aircraft) (per station) (47 CFR part 87)	5
Aviation (Ground) (per license) (47 CFR part 87)	15
Amateur Vanity Call Signs (per call sign) (47 CFR part 97)	2.08
CMRS Mobile/Cellular Services (per unit) (47 CFR parts 20, 22, 24, 27, 80 and 90)	.25
CMRS Messaging Services (per unit) (47 CFR parts 20, 22, 24 and 90)	.08
Multipoint Distribution Services (MMDS/ MDS) (per call sign) (47 CFR part 21)	270
Local Multipoint Distribution Service (per call sign) (47 CFR, part 101)	270
AM Radio Construction Permits	465
FM Radio Construction Permits	1,650
TV (47 CFR part 73) VHF Commercial	
Markets 1-10	60,375
Markets 11-25	41,475
Markets 26-50	29,175
Markets 51-100	17,575
Remaining Markets	4,050
Construction Permits	4,650
TV (47 CFR part 73) UHF Commercial	
Markets 1-10	17,775

Fee Category	Annual Regulatory Fee (U.S. \$'s)
Markets 11-25	16,175
Markets 26-50	9,300
Markets 51-100	5,550
Remaining Markets	1,650
Construction Permits	5,675
Satellite Television Stations (All Markets)	1,050
Construction Permits – Satellite Television Stations	520
Low Power TV, TV/FM Translators & Boosters (47 CFR part 74)	385
Broadcast Auxiliary (47 CFR part 74)	10
CARS (47 CFR part 78)	135
Cable Television Systems (per subscriber) (47 CFR part 76)	.70
Interstate Telecommunication Service Providers (per revenue dollar)	.00218
Earth Stations (47 CFR part 25)	200
Space Stations (per operational station in geostationary orbit) (47 CFR part 25) also includes Direct Broadcast Satellite Service (per operational station) (47 CFR part 100)	114,675
Space Stations (per operational system in non-geostationary orbit) (47 CFR part 25)	131,400
International Bearer Circuits (per active 64KB circuit)	2.52
International Public Fixed (per call sign) (47 CFR part 23)	1,750
International (HF) Broadcast (47 CFR part 73)	745

FY 2004 SCHEDULE OF REGULATORY FEES (continued)

FY 2004 RADIO STATION REGULATORY FEES						
Population Served	AM Class A	AM Class B	AM Class C	AM Class D	FM Classes A, B1 & C3	FM Classes B, C, C0, C1 & C2
<=25,000	600	450	350	425	525	675
25,001 – 75,000	1,200	900	525	625	1,050	1,175
75,001 – 150,000	1,800	1,125	700	1,075	1,450	2,200
150,001 – 500,000	2,700	1,925	1,050	1,275	2,225	2,875
500,001 – 1,200,000	3,900	2,925	1,750	2,125	3,550	4,225
1,200,001 – 3,000,000	6,000	4,500	2,625	3,400	5,775	6,750
>3,000,000	7,200	5,400	3,325	4,250	7,350	8,775

ATTACHMENT H

RULE CHANGES

Part 1 of Title 47 of the Code of Federal Regulations is amended to read as follows:

PART 1 – PRACTICE AND PROCEDURE

1. The authority citation for Part 1 continues to read as follows:
Authority: 47 U.S.C. 151, 154(i), 154(j), 155, 225, 303, 309.

2. Section 1.1152 is revised to read as follows:

§ 1.1152 Schedule of annual regulatory fees and filing locations for wireless radio services.

Exclusive use services (per license)	Fee Amount ²⁷¹	Address
1. Land Mobile (Above 470 MHz and 220 MHz Local, Base Station & SMRS) (47 CFR, Part 90)		
a) New, Renew/Mod (FCC 601 & 159)	\$10.00	FCC P.O. Box 358130 Pittsburgh, PA 15251-5130
b) New, Renew/Mod (Electronic Filing) (FCC 601 & 159)	\$10.00	FCC P.O. Box 358994 Pittsburgh, PA 15251-5994
c) Renewal Only (FCC 601 & 159)	\$10.00	FCC P.O. Box 358245 Pittsburgh, PA 15251-5245
d) Renewal Only (Electronic Filing) (FCC 601 & 159)	\$10.00	FCC P.O. Box 358994 Pittsburgh, PA 15251-5994

²⁷¹ Note that "small fees" are collected in advance for the entire license term. Therefore, the annual fee amount shown in this table that is a small fee (categories 1 through 5) must be multiplied by the 5- or 10-year license term, as appropriate, to arrive at the total amount of regulatory fees owed. It should be further noted that application fees may also apply as detailed in §1.1102 of this chapter.

220 MHz Nationwide	\$10.00	FCC
a)New, Renew/Mod (FCC 601 & 159)		P.O. Box 358130 Pittsburgh, PA 15251-5130
b)New, Renew/Mod (Electronic Filing) (FCC 601 & 159)	\$10.00	FCC P.O. Box 358994 Pittsburgh, PA 15251-5994
c)Renewal Only (FCC 601 & 159)	\$10.00	FCC P.O. Box 358245 Pittsburgh, PA 15251-5245
d)Renewal Only (Electronic Filing) (FCC 601 & 159)	\$10.00	FCC P.O. Box 358994 Pittsburgh, PA 15251-5994
2. Microwave (47 CFR Pt. 101) (Private)		
a)New, Renew/Mod (FCC 601 & 159)	\$60.00	FCC P.O. Box 358130 Pittsburgh, PA 15251-5130
b)New, Renew/Mod (Electronic Filing) (FCC 601 & 159)	\$60.00	FCC P.O. Box 358994 Pittsburgh, PA 15251-5994
c)Renewal Only (FCC 601 & 159)	\$60.00	FCC P.O. Box 358245 Pittsburgh, PA 15251-5245
d)Renewal Only (Electronic Filing) (FCC 601 & 159)	\$60.00	FCC P.O. Box 358994 Pittsburgh, PA 15251-5994
3. 218-219 MHz Service		
a)New, Renew/Mod (FCC 601 & 159)	\$50.00	FCC P.O. Box 358130 Pittsburgh, PA 15251-5130
b)New, Renew/Mod (Electronic Filing) (FCC 601 & 159)	\$50.00	FCC P.O. Box 358994 Pittsburgh, PA 15251-5994

c)Renewal Only (FCC 601 & 159)	\$50.00	FCC P.O. Box 358245 Pittsburgh, PA 15251-5245
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d)Renewal Only (Electronic Filing) (FCC 601 & 159)	\$50.00	FCC P.O. Box 358994 Pittsburgh, PA 15251-5994
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4. Shared Use Services

Land Mobile (Frequencies Below 470 MHz – except 220 MHz)

a)New, Renew/Mod (FCC 601 & 159)	\$5.00	FCC P.O. Box 358130 Pittsburgh, PA 15251-5130
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b) New, Renew/Mod (Electronic Filing) (FCC 601 & 159)	\$5.00	FCC P.O. Box 358994 Pittsburgh, PA 15251-5994
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c)Renewal Only (FCC 601 & 159)	\$5.00	FCC P.O. Box 358245 Pittsburgh, PA 15251-5245
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d)Renewal Only (Electronic Filing) (FCC 601 & 159)	\$5.00	FCC P.O. Box 358994 Pittsburgh, PA 15251-5994
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General Mobile Radio Service

a)New, Renew/Mod (FCC 605 & 159)	\$5.00	FCC P.O. Box 358130 Pittsburgh, PA 15251-5130
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b)New, Renew/Mod (Electronic Filing) (FCC 605 & 159)	\$5.00	FCC P.O. Box 358994 Pittsburgh, PA 15251-5994
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c)Renewal Only (FCC 605 & 159)	\$5.00	FCC P.O. Box 358245 Pittsburgh, PA 15251-5245
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d)Renewal Only (Electronic Filing) (FCC 605 & 159)	\$5.00	FCC P.O. Box 358994 Pittsburgh, PA 15251-5994
Rural Radio (Part 22)		
a)New, Additional Facility, Major Renew/Mod (Electronic Filing) (FCC 601 & 159)	\$5.00	FCC P.O. Box 358994 Pittsburgh, PA 15251-5994
b)Renewal, Minor Renew/Mod (Electronic Filing) (FCC 601 & 159)	\$5.00	FCC P.O. Box 358994 Pittsburgh, PA 15251-5994
Marine Coast		
a)New Renewal/Mod (FCC 601 & 159)	\$10.00	FCC P.O. Box 358130 Pittsburgh, PA 15251-5130
b)Renewal Only (FCC 601 & 159)	\$10.00	FCC P.O. Box 358245 Pittsburgh, PA 15251-5245
c)Renewal Only (Electronic Filing) (FCC 601 & 159)	\$10.00	FCC P.O. Box 358994 Pittsburgh, PA 15251-5994
Aviation Ground		
a)New, Renewal/Mod (FCC 601 & 159)	\$15.00	FCC P.O. Box 358130 Pittsburgh, PA 15251-5130
b)Renewal Only (FCC 601 & 159)	\$15.00	FCC P.O. Box 358245 Pittsburgh, PA 15251-5245
c)Renewal Only (Electronic Filing) (FCC 601 & 159)	\$15.00	FCC P.O. Box 358994 Pittsburgh, PA 15251-5994
Marine Ship		
a)New, Renewal/Mod (FCC 605 & 159)	\$10.00	FCC P.O. Box 358130 Pittsburgh, PA 15251-5130

b)New, Renewal/Mod (Electronic Filing) (FCC 605 & 159)	\$10.00	FCC P.O. Box 358994 Pittsburgh, PA 15251-5994
c)Renewal Only (FCC 605 & 159)	\$10.00	FCC P.O. Box 358245 Pittsburgh, PA 15251-5245
d)Renewal Only (Electronic Filing) (FCC 605 & 159)	\$10.00	FCC P.O. Box 358994 Pittsburgh, PA 15251-5994
Aviation Aircraft		
a)New, Renew/Mod (FCC 605 & 159)	\$5.00	FCC P.O. Box 358130 Pittsburgh, PA 15251-5130
b)New, Renew/Mod (Electronic Filing) (FCC 605 & 159)	\$5.00	FCC P.O. Box 358994 Pittsburgh, PA 15251-5994
c)Renewal Only (FCC 605 & 159)	\$5.00	FCC P.O. Box 358245 Pittsburgh, PA 15251-5245
d)Renewal Only (Electronic Filing) (FCC 605 & 159)	\$5.00	FCC P.O. Box 358994 Pittsburgh, PA 15251-5994
5. Amateur Vanity Call Signs		
a)Initial or Renew (FCC 605 & 159)	\$2.19	FCC P.O. Box 358130 Pittsburgh, PA 15251-5130
b)Initial or Renew (Electronic Filing) (FCC 605 & 159)	\$2.19	FCC P.O. Box 358994 Pittsburgh, PA 15251-5994

6. CMRS Mobile Services (per unit) (FCC 159)	\$.22 ²⁷²	FCC P.O. Box 358835 Pittsburgh, PA 15251-5835
7. CMRS Messaging Services (per unit) (FCC 159)	\$.08 ²⁷³	FCC P.O. Box 358835 Pittsburgh, PA 15251-5835
8. Multipoint Distribution (Includes MMDS and MDS)	\$ 255	FCC, Multipoint P.O. Box 358835 Pittsburgh, PA 15251-5835
9. Local Multipoint Distribution Service	\$ 255	FCC, Multipoint P.O. Box 358835 Pittsburgh, PA 15251-5835

3. Section 1.1153 is revised to read as follows:

§ 1.1153 Schedule of annual regulatory fees and filing locations for mass media services.

Radio [AM and FM] (47 CFR, Part 73)	Fee Amount	Address
1. <u>AM Class A</u>		
<=25,000 population	\$625	FCC, Radio
25,001-75,000 population	\$1,225	P.O. Box 358835
75,001-150,000 population	\$1,825	Pittsburgh, PA
150,001-500,000 population	\$2,750	15251-5835
500,001-1,200,000 population	\$3,950	
1,200,001-3,000,000 population	\$6,075	
>3,000,000 population	\$7,275	
2. <u>AM Class B</u>		
<=25,000 population	\$475	
25,001-75,000 population	\$925	
75,001-150,000 population	\$1,150	
150,001-500,000 population	\$1,950	
500,001-1,200,000 population	\$2,975	
1,200,001-3,000,000 population	\$4,575	
>3,000,000 population	\$5,475	

²⁷² These are standard fees that are to be paid in accordance with § 1.1157(b) of this chapter.

²⁷³ These are standard fees that are to be paid in accordance with § 1.1157(b) of this chapter.

3.	<u>AM Class C</u>	
	<=25,000 population	\$375
	25,001-75,000 population	\$550
	75,001-150,000 population	\$750
	150,001-500,000 population	\$1,125
	500,001-1,200,000 population	\$1,875
	1,200,001-3,000,000 population	\$2,825
	>3,000,000 population	\$3,575
4.	<u>AM Class D</u>	
	<=25,000 population	\$450
	25,001-75,000 population	\$675
	75,001-150,000 population	\$1,125
	150,001-500,000 population	\$1,350
	500,001-1,200,000 population	\$2,250
	1,200,001-3,000,000 population	\$3,600
	>3,000,000 population	\$4,500
5.	AM Construction Permit	\$310
6.	<u>FM Classes A, B1 and C3</u>	
	<=25,000 population	\$550
	25,001-75,000 population	\$1,125
	75,001-150,000 population	\$1,550
	150,001-500,000 population	\$2,375
	500,001-1,200,000 population	\$3,750
	1,200,001-3,000,000 population	\$6,100
	>3,000,000 population	\$7,750
7.	<u>FM Classes B, C, C0, C1 and C2</u>	
	<=25,000 population	\$725
	25,001-75,000 population	\$1,250
	75,001-150,000 population	\$2,300
	150,001-500,000 population	\$3,000
	500,001-1,200,000 population	\$4,400
	1,200,001-3,000,000 population	\$7,025
	>3,000,000 population	\$9,125
8.	FM Construction Permits	\$550

TV (47 CFR, Part 73)**VHF Commercial**

1.	Markets 1 thru 10	\$61,975
2.	Markets 11 thru 25	\$44,675
3.	Markets 26 thru 50	\$32,025
4.	Markets 51 thru 100	\$18,800
5.	Remaining Markets	\$ 4,625
6.	Construction Permits	\$ 3,175

FCC, TV Branch
P.O. Box 358835
Pittsburgh, PA
15251-5835

UHF Commercial

1.	Markets 1 thru 10	\$20,025	FCC,UHFCommercial
2.	Markets 11 thru 25	\$17,525	P.O. Box 358835
3.	Markets 26 thru 50	\$10,050	Pittsburgh, PA
4.	Markets 51 thru 100	\$ 6,125	15251-5835
5.	Remaining Markets	\$ 1,725	
6.	Construction Permits	\$ 1,725	

Satellite UHF/VHF Commercial

1.	All Markets	\$1,075	FCC Satellite TV
2.	Construction Permits	\$ 535	P.O. Box 358835
			Pittsburgh, PA
			15251-5835

Low Power TV, TV/FM Translator, & TV/FM Booster (47 CFR Part 74)	\$ 395	FCC, Low Power P.O. Box 358835 Pittsburgh, PA 15251-5835
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Broadcast Auxiliary	\$ 10	FCC, Auxiliary P.O. Box 358835 Pittsburgh, PA 15251-5835
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4. Section 1.1154 is revised to read as follows:

§ 1.1154 Schedule of annual regulatory charges and filing locations for common carrier services.

Radio Facilities	Fee Amount	Address
1. Microwave (Domestic Public Fixed) (Electronic Filing) (FCC Form 601 & 159)	\$60.00	FCC P.O. Box 358994 Pittsburgh, PA 15251-5994

Carriers

1. Interstate Telephone Service Providers (per interstate and international end-user revenues (see FCC Form 499-A))	\$.00243	FCC, Carriers P.O. Box 358835 Pittsburgh, PA 15251-5835
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5. Section 1.1155 is revised to read as follows:

§ 1.1155 Schedule of regulatory fees and filing locations for cable television services.

	Fee Amount	Address
1. Cable Television Relay Service	\$155	FCC, Cable
2. Cable TV System (per subscriber)	\$.72	P.O. Box 358835 Pittsburgh, PA 15251-5835

6. Section 1.1156 is revised to read as follows:

§ 1.1156 Schedule of regulatory fees and filing locations for international services.

Radio Facilities	Fee Amount	Address
1. International (HF) Broadcast	\$765	FCC, International P.O. Box 358835 Pittsburgh, PA 15251-5835
2. International Public Fixed	\$1,800	FCC, International P.O. Box 358835 Pittsburgh, PA 15251-5835
Space Stations (Geostationary Orbit)	\$111,925	FCC, Space Stations P.O. Box 358835 Pittsburgh, PA 15251-5835
Space Stations (Non-Geostationary Orbit)	\$112,425	FCC, Space Stations P.O. Box 358835 Pittsburgh, PA 15251-5835
Earth Stations Transmit/Receive & Transmit Only (per authorization or registration)	\$205	FCC, Earth Station P.O. Box 358835 Pittsburgh, PA 15251-5835
Carriers International Bearer Circuits (per active 64KB circuit or equivalent)	\$ 1.37	FCC, International P.O. Box 358835 Pittsburgh, PA 15251-5835

**STATEMENT OF
COMMISSIONER MICHAEL COPPS,
CONCURRING**

Re: Assessment and Collection of Regulatory Fees for Fiscal Year 2005

As in past years, I concur to emphasize that the Commission should consider initiating a proceeding to address when or how it would adjust the regulatory fees pursuant to section 9(b)(3) of the Act. As technology advances and our regulatory activities change, we must continue to look for ways to improve our regulatory fee methodology to ensure that we continue to comply fully with the Act's requirements.

**STATEMENT OF
COMMISSIONER JONATHAN ADELSTEIN
APPROVING IN PART, CONCURRING IN PART**

*Re: Assessment and Collection of Regulatory Fees for Fiscal Year 2005;
MD Docket No. 05-59*

As in years past, I must concur to portions of our Regulatory Fee Order because I remain troubled with the Commission's inability to consider changes that undoubtedly occur from time to time in the costs of regulatory fees for individual services. I encourage the Commission to continue to improve its regulatory fee assessment processes so that in the future we are more able to make these adjustments as appropriate.